REMARKS

This amendment is responsive to the Office Action dated August 14, 2007. Applicant has amended claims 1 and 17 and added claim 26. Claims 1-26 are pending.

Allowable Subject Matter

In the Office Action, the Examiner objected to claim 16 as including subject matter allowable over the prior art. Applicant appreciates this indication by the Examiner but has elected not to rewrite claim 16 in independent form at this time.

Claim Rejection Under 35 U.S.C. § 112

In the Final Office Action, the Examiner rejected claims 1 and 17 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description. In particular, the Examiner stated that the specification does not contain a written description for the claim limitation of an antenna that forms an electromagnetic field *at or above a threshold level necessary* for communication with RFID tags.

Applicant has amended claims 1 and 17 for purposes of clarification. Specifically, Applicant has amended claims 1 and 17 to require an antenna that forms an electromagnetic field that defines a communization zone in which RFID tags can be read. Support can be found throughout the specification. See, e.g., para. [0009].

Applicant submits that claims 1 and 17 comply with the written description requirement of 35 U.S.C. 112, first paragraph.

Provisional Rejection for Obviousness-type Double Patenting:

The Examiner provisionally rejected claims 1-2, 5 and 13-16 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 12, 13 and 21-25 of copending Application No. 10/784,124. Applicants note the provisional status of this rejection. Accordingly, Applicants will address this issue if and when the rejection is formally applied.

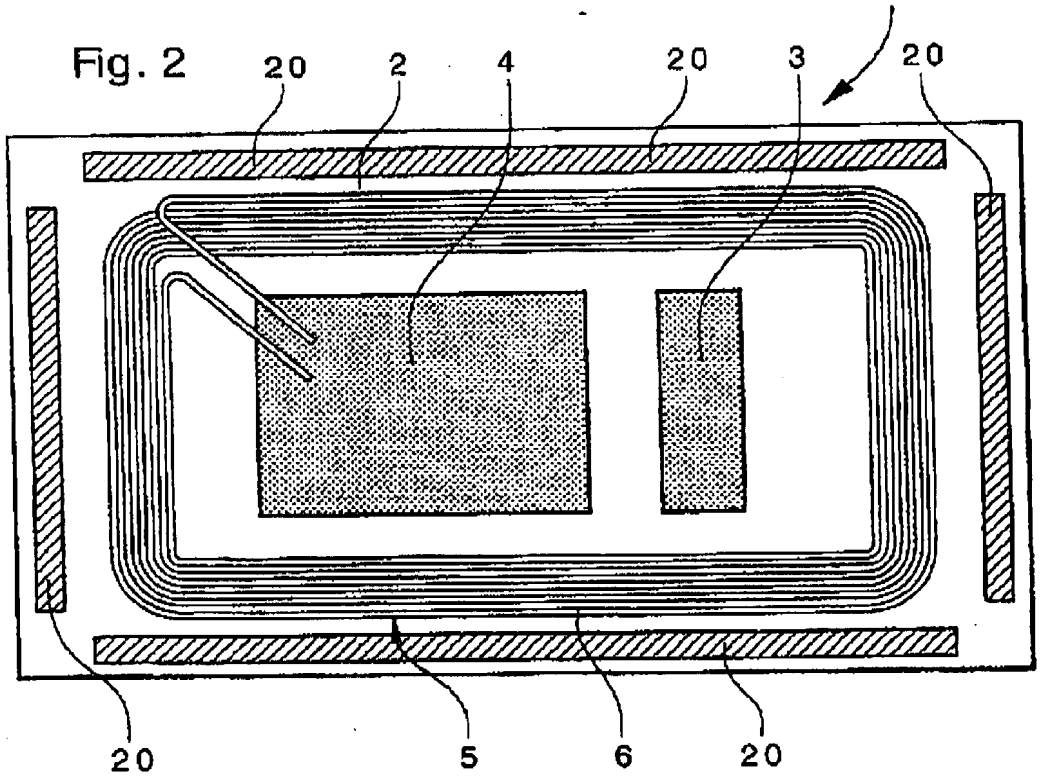
Claim Rejection Under 35 U.S.C. § 103

In the Final Office Action, the Examiner rejected claims 1–25 under 35 U.S.C. 103(a) as being unpatentable over Kunz (US 6,127,989) in view of Krebs (US 2004/0224135). Applicant respectfully traverses the rejection to the extent such rejections may be considered applicable to the claims as amended. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

First, in rejecting claims 1 and 17, the Examiner cites FIG. 2; col. 2, ll. 1-25 of Kunz as teaching an RFID system comprising an antenna *that forms an electromagnetic field for communication with RFID tags.* This is emphatically incorrect. FIG. 2 of Kunz shows an **RFID tag** (referred to in Kunz as a transponder) that has a protective metal ring 20 formed around the exterior of the tag to protect against mechanical stress.[1] Kunz at col. 1, ll. 23-24. As an RFID tag, it in no way forms any electromagnetic field for RFID communication with RFID tags. The Kunz RFID tag shown in Fig. 2 of Kunz is reproduced below.

[1] The Examiner appears to have misunderstood that an RFID tag is frequently referred to as an RFID transponder in the art. Kunz is not describing an RFID reader or other RFID device that forms an electromagnetic field. RFID transponders, such as the Kunz transponder, do not form RFID electromagnetic fields for communicating with RFID tags, as required by claim 1. According to the RFID Journal, an RFID transponder is a radio transmitter-receiver that is activated when it receives a predetermined signal. RFID transponders come in many forms, including smart labels, simple tags, smart cards and keychain fobs. http://www.rfidjournal.com/article/glossary/4#162

Fig. 2



In no way does the RFID tag 10 of Kunz have an antenna *that forms an electromagnetic field that defines a communization zone in which RFID tags can be read, wherein the antenna has a substantially planar form*, as required by claim 1. Quite the contrary, as an RFID tag, antenna 6 shown in Kunz FIG. 2 does not form the electromagnetic field for RFID communication, and certainly not for communication with RFID tags, as required by claim 1. In RFID systems having passive tags, such as the Kunz RFID tag, the electromagnetic field is **not** formed by any of the RFID tags. Rather, the electromagnetic field for RFID communication is formed by an interrogation device, such as the RFID reader. An RFID tag typically includes an integrated circuit operatively connected to an antenna that receives RF energy from the electromagnetic field created by the interrogation device, and then modulates the RF energy to communicate information back to the interrogation device. This is explained in paragraph [0030] of the present application.

The RFID tag shown in FIG. 2 of Kunz operates in this conventional way. That is, the Kunz RFID tag receives energy from the electromagnetic field formed by the RFID reader. Kunz

expressly states this fact, i.e., that the antenna of the RFID tag 10 is arranged to "receive data and energy" to supply to the integrated circuit. Kunz at col. 2, ll. 38-39. This is consistent with the fact that passive RFID tags do not form the electromagnetic field for RFID communications, rather utilize the electromagnetic field formed by the RFID reader. For this reason, the Examiner's conclusions with respect to the teachings of Kunz are incorrect and do not establish the teachings asserted by the Examiner. Kunz in view of See fails to teach or suggest an antenna that forms an electromagnetic field that defines a communization zone RFID tags can be read, wherein the antenna has a substantially planar form.

Furthermore, the applied references also lack any teaching that would have suggested an RFID system that includes a substantially-contiguous conductive shield positioned a distance from the antenna within a plane parallel to the antenna to define an outermost region of a communication zone within the plane parallel to the antenna, and wherein the conductive shield has a width that extends in the plane parallel to the antenna such that the electromagnetic field at any region beyond the conductive shield is below the threshold level, as further required by claims 1 and 17.

In rejecting claims 1 and 17, the Examiner asserted that it would have been obvious to modify the antenna of the Kunz tag to include the internal shielding of the cell phone described by See "in order to decrease the interaction of an internal antenna [of the cell phone] with other elements or conductors in the wireless device." However, even if such a modification were somehow made to the Kunz RFID tag (transponder) to include the shielding of See, it still would not achieve Applicant's invention as claimed. As stated above, Kunz fails to teach or suggest an antenna that forms any electromagnetic field that defines a communication zone for communication with RFID tags. Thus, even if the Kunz RFID tag were modified to include the internal shielding of See, the result would only be to decrease the interaction of the internal elements of the Kunz RFID tag and would not conform to Applicant's invention as claimed.

In addition, See provides no teaching with respect to the structural elements of Applicant's claim 1 that precisely define the substantially-contiguous conductive shielding. Specifically, claim 1 requires that the substantially-contiguous conductive shielding is positioned a distance from the antenna within a plane parallel to the antenna to define an outermost region of a communication zone within the plane parallel to the antenna. Moreover claim 1 specifically

requires that the conductive shield has a width that extends in the plane parallel to the antenna such that the electromagnetic field at any region beyond the conductive shield is below a threshold level for communication with the RFID tags.

In contrast, the description of See cited by the Examiner (col. 12, ll. 48 – col. 13, ll. 4) is nothing more that a general statement regarding the use of internal shielding for the See cell phone. The discussion provides no teaching or reference whatsoever to a substantially-contiguous conductive shield, nor any teaching as to a spacing or a width of the shielding so as to form a particular communization zone that only extends to the edge of the conductive shield, as required by claim 1.

Furthermore, it makes little sense that the internal shielding of See would have a spacing and a width to define a communication zone in the manner recited in claim 1. Specifically, claim 1 requires that the conductive shield has a width that extends in the plane parallel to the antenna such that the electromagnetic field at any region beyond the conductive shield is below a threshold level for communication with the RFID tags. If See were to provide such a teaching and somehow employ an internal shielding that satisfies the requirements of Applicant's claim 1, then the communication zone would necessarily not extend beyond the edge of the shielding, as specifically required by claim 1. This would render the See cell phone inoperable. That is, the See cell phone would not be able to communicate with any other cell phone because any other cell phone would necessarily be positioned beyond a given cell phone's internal shielding. Clearly the See disclosure does not teach or suggest such as shielding as proposed by the Examiner. Similarly, to satisfy the elements of Applicant's claim 1, modification of the Kunz tag to include such shielding (as purportedly taught by Kunz in view of See according to the Examiner) would require that the conductive shield have a width that extends in the plane parallel to the antenna such that the electromagnetic field at any region beyond the conductive shield is below a threshold level for communication with the RFID tags. Even if such a hypothetical modification were possible, the resulting RFID tag would, therefore, be unable to communicate with any other RFID device since all other RFID devices would by definition be beyond the internal conductive shield of the tag. Thus, as stated above, even if one of ordinary skill in the art were to modify the antenna of the RFID tag of Kunz to include the internal

shielding of See, this would not result in Applicant's invention as claimed. Consequently, amended independent claims 1 and 17 are patentable over Kunz in view of See.

Of course, the claims dependent on independent claims 1 and 17, i.e., claims 2–16, 18–25, incorporate all of the limitations of the respective base claims, and therefore are patentable for at least the reasons expressed above.

Applicant wishes to draw the Examiner's attention first to claims 9 and 22. Claims 9 and 22 specify that the antenna and the conductive shield are mounted to a working surface of an RFID check-in / check-out area. Claims 10 and 23 specify that the working surface has a recessed area and a non-recessed area, and further wherein the antenna is mounted to the recessed area of the working surface and the conductive shield is mounted to the non-recessed area. Contrary to the Examiner's assertion, Kunz is completely lacking of any such teaching or suggestion of these features, making no reference whatsoever to an RFID check-in / check-out area or a recessed area and a non-recessed area. Krebs similarly fails to teach or suggest these features.

In rejecting claims 9, 10, 22, and 23, the Examiner merely cites Kunz at FIG. 2, col. 2, ll. 1-3. As explained above, Kunz is describing an RFID tag having a protective metal ring. Kunz makes clear that, as an RFID tag, the antenna receives energy and provides the energy to the integrated circuit. In no way whatsoever does the teaching of Kunz discuss that the antenna and the conductive shield are mounted to a working surface of an RFID check-in / check-out area, as required by claims 9 and 22. This would require mounting the RFID tag of Kunz to a working surface of a check-in / check-out area. Not only is this not disclosed, but this makes little sense. This further illustrates that the Examiner has misunderstood Kunz's description of an RFID tag.

Further, claims 10 and 23 require that the working surface has a recessed area and a non-recessed area, and further wherein the antenna is mounted to the recessed area of the working surface and the conductive shield is mounted to the non-recessed area. Applicant has no idea how the Examiner can assert that these features are taught by Fig. 2, col. 2, ll. 1-3 of Kunz. This integrated circuit structure of the Kunz RFID tag and its substrate certainly cannot be construed having a "working surface of an RFID check-in / check-out area" and there is no suggestion of an RFID check-in / checkout area in which the antenna is mounted to the recessed area of the

working surface and the conductive shield is mounted to the non-recessed area, as required by claims 10 and 23.

The Examiner rejected claims 2, 7-8, 13, 18, 20-21 and 24 under 35 U.S.C. 103(a) as being unpatentable over Kunz in view of See and further in view of Krebs (US 2004/0224135). As explained in Applicant's previous response, Krebs describes a large shield applied to an entire shelf. Quite simply, incorporating the Krebs shelf shielding within an individual RFID tag of Kunz makes little sense. Moreover, the modified RFID tag would still fail to achieve Applicant's claimed invention for at least the reasons set forth above.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims 1–25 under 35 U.S.C. 103(a). Withdrawal of this rejection is requested.

New Claims:

Applicant has added claim 26 to the pending application. The applied references fail to disclose or suggest the inventions defined by Applicant's new claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed inventions. No new matter has been added by the new claims. For example, paragraph [0032] describes an RFID reader that incorporates a dual-loop antenna 13. Paragraph [0002] describes a computing device to control an RFID reader.

CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

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